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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,494	08/18/2003	Koji Motoyama	0033-0897P	1856
2292	7590	11/10/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			KHAN, SUHAIL	
			ART UNIT	PAPER NUMBER
			2686	

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/642,494

Applicant(s)

MOTOYAMA, KOJI

Examiner

Suhail Khan

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application EP 0718964 A2 to Kennan, in view of U.S. Patent No. 6538533 to Hwang et al.

Referring to **claim 1**, Kennan discloses a low noise block down converter (col 1, lines 5-10, Low Noise Block Downconverters), comprising: a plurality of local oscillators (col 2, lines 13-15, two FET oscillators) with applied potential to the input (col 3, lines 9-12, potential) each including a dielectric resonator (col 2, lines 15-20, dielectric resonator) and having an oscillation frequency different from each other (col 2, lines 5-10, two different frequencies). Kennan does not disclose a metal shielding box accommodating said plurality of local oscillators, wherein said metal shielding box includes only one shielding chamber accommodating said plurality of local oscillators and an electromagnetic coupling preventing member preventing electromagnetic coupling between one and another one of said dielectric resonators; said electromagnetic coupling preventing member extending between any two of said dielectric resonators and receiving a reference potential.

However, Hwang et al disclose two dielectric resonators, a metal case and a screw arranged between the dielectric resonators (col 7, lines 43-52; figures 7A/7B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kennan to show a low noise block down converter, comprising: a plurality of local oscillators each including a dielectric resonator and having an oscillation frequency different from each other; and a metal shielding box accommodating said plurality of local oscillators, wherein said metal shielding box includes only one shielding chamber accommodating said plurality of local oscillators and an electromagnetic coupling preventing member preventing electromagnetic coupling between one and another one of said dielectric resonators; said electromagnetic coupling preventing member extending between any two of said dielectric resonators and receiving a reference potential, as taught by Hwang et al, the motivation being coupling adjustment (col 7, lines 43-52).

Referring to **claim 2**, Kennan discloses the low noise block down converter (col 1, lines 5-10, Low Noise Block Downconverters) according to claim 1 and receiving a reference potential (col 3, lines 9-12, applying a first potential to the input). Kennan does not disclose an electromagnetic coupling preventing member which includes a conductive bar having one end extending between any two of said dielectric resonators.

However, Hwang et al disclose a screw arranged between the dielectric resonators (col 7, lines 43-52; figures 7A/7B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kennan to show the low noise block down converter, wherein said electromagnetic coupling preventing member includes a conductive bar having one end extending between any two of said dielectric resonators and receiving a reference potential, the motivation being coupling adjustment (col 7, lines 43-52).

Referring to **claim 3**, Kennan discloses the low noise block down converter (col 1, lines 5-10, Low Noise Block Downconverters) according to claim 1, further comprising plurality of local oscillators (col 2, lines 13-15, two FET oscillators), two of said dielectric resonators (col 2, lines 15-20, dielectric resonator) and receiving a reference potential (col 3, lines 9-12, applying a first potential to the input). Kennan does not disclose a substrate having a surface on which the local oscillators are mounted and an electromagnetic coupling preventing member which includes a conductive pattern formed on the surface of said substrate.

However, Hwang et al disclose a screw arranged between the dielectric resonators (col 7, lines 43-52; figures 7A/7B) and a dielectric substrate (col 7, lines 5-11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kennan to show the low noise block down converter, further comprising a substrate having a surface on which said plurality of local oscillators are mounted, wherein said electromagnetic coupling preventing member includes a conductive pattern formed on the surface of said substrate between any two of said dielectric resonators and receiving a reference potential, the motivation being coupling adjustment (col 7, lines 43-52).

Referring to **claim 4**, Kennan discloses the low noise block down converter (col 1, lines 5-10, Low Noise Block Downconverters) with applied potential to the input (col 3, lines 9-12, potential) according to claim 1. Kennan does not disclose an electromagnetic coupling preventing member which includes a metal plate provided between any two of said dielectric resonators and receiving a reference potential.

However, Hwang et al disclose a screw arranged between the dielectric resonators (col 7, lines 43-52; figures 7A/7B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kennan to show the low noise block down converter, wherein said electromagnetic coupling preventing member includes a metal plate provided between any two of said dielectric resonators and receiving a reference potential, the motivation being coupling adjustment (col 7, lines 43-52).

***Response to Arguments***

3. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suhail Khan whose telephone number is (571) 272-7910. The

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examiner can normally be reached on M-F from 8 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold, can be reached at (571) 272-7905.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sk

  
CHARLES APPIAH  
PRIMARY EXAMINER